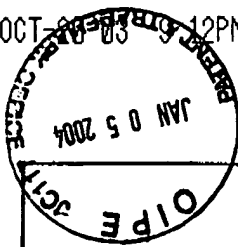


Title: Method for manufacturing a power module with a circuit arrangement comprising active and passive semiconductor components  
Filing No.: 197 00 963.8 ←  
Filing date: January 14, 1997  
Inventors: Dipl.-Ing. Hans-Peter Feustel,  
Dipl.-Ing. Friedrich Loskarn,  
Dipl.-Ing. Reinhard Rückert

**Abstract:**

The invention relates to a method of manufacturing a power module with a circuit arrangement comprising active and passive components, and with a circuit carrier, whereby at least some of the active semiconductor components are soldered onto a DCB substrate and at least some of the passive semiconductor components are printed onto at least one ceramic carrier by means of thick-film technology. The top side of the DCB substrate is structured to form conductive strips and connecting surfaces and to accommodate the active and passive semiconductor components of the circuit arrangement. Onto the ceramic carrier for each passive component, a first printed layer and at least one contact surface as an additional printed layer laterally following the first printed layer is printed by means of thick-film technology. The ceramic carriers for the passive components in thick-film technology are connected by means of soldering with the corresponding connecting surface(s) of the DCB substrate, via the at least one contact surface.

**Peter Hessel, C.Tran. (Canada)****[German-English and English-German]**

3811 Highland Rd., Wabash, R.R. 3, Arnprior, Ont., Canada K7S 3G9

Tel.: (613) 623-7820; FAX: (613) 623-6158

e-mail: p. hessel@sympatico.ca

Translator's Declaration issued under authority of the  
Association of Translators and Interpreters of Ontario Act, L.C. 1989.**Certificate of Accuracy of Translation**

I, the undersigned,


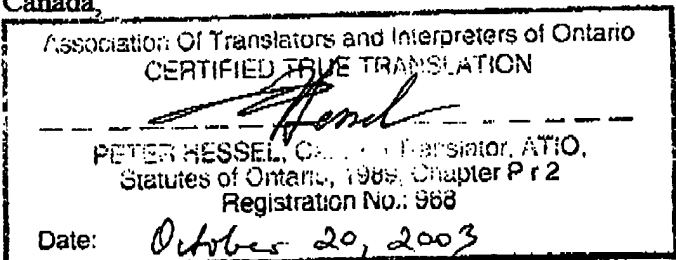
**PETER HESSEL, C.Tran. (Canada)**

hereby certify

- (1) that I am fully conversant with both the English and the German languages;
- (2) that I have translated into English:  
Abstract only of Filing No.: 197 00 963.8; ←
- (3) that the translation is to the best of my knowledge and belief an accurate translation from the original into the English language.

I, the undersigned declare further that all statements made herein of my own knowledge are true and that all statements made of information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the matter with which this translation is used.

DECLARED at the Township of McNab/Braeside,  
County of Renfrew, Province of Ontario, Canada,  
this 20th day of October, 2003

  
Peter Hessel,  
Certified Translator, ATIO

Certified Translator; Member, Association of Translators and Interpreters of Ontario (ATIO C.T. Registration No.: 968)  
Affiliate Member of the Canadian Translators and Interpreters Council [CTIC]